

BIDDER _____

BID SECURITY _____

CITY OF NEWARK
Delaware

CONTRACT NO. 16-05

PURCHASE OF ONE NEW 43' AERIAL LIFT,
UTILITY BODY AND CHASSIS

NOTICE

Do not disassemble. Return intact with
properly completed forms or bid may be rejected.

CITY OF NEWARK
Delaware

CONTRACT NO. 16-05

PURCHASE OF ONE NEW 43' AERIAL LIFT,

UTILITY BODY AND CHASSIS

TABLE OF CONTENTS

NOTICE OF LETTING.	1
GENERAL PROVISIONS	2
TECHNICAL SPECIFICATIONS	9
BIDDER'S PROPOSED SPECIFICATIONS	29
PROPOSAL	31
BOND TO ACCOMPANY PROPOSAL	33

CITY OF NEWARK
Delaware

CONTRACT NO. 16-05

PURCHASE OF ONE NEW 43' AERIAL LIFT,

UTILITY BODY AND CHASSIS

NOTICE OF LETTING

Sealed proposals for Contract No. 16-05, Purchase Of One New 43' Aerial Lift, Utility Body and Chassis will be received in the Purchasing Office, City Municipal Building, 220 South Main Street, Newark, Delaware, 19711 until 2 p.m., prevailing time, Tuesday, March 1, 2016, and will be publicly opened and read aloud in the Council Chamber shortly thereafter.

Copies of the contract documents may be obtained on the City's website at www.cityofnewarkde.us.

CITY OF NEWARK
Delaware

CONTRACT NO. 16-05

PURCHASE OF ONE NEW 43' AERIAL LIFT,

UTILITY BODY AND CHASSIS

GENERAL PROVISIONS

1. BIDS

Each bid shall be submitted on the proposal form included herein. The proposal and all other required documents must be submitted in a sealed envelope clearly identified with the bidder's name and marked, "City of Newark - Contract No. 16-05, "Purchase Of One New 43' Aerial Lift, Utility Body and Chassis," and will be received in the Purchasing Office, 220 South Main Street, Newark, Delaware, 19711 until 2 p.m., prevailing time, Tuesday, March 1, 2016. Each bid so submitted shall constitute an irrevocable offer for a period of sixty (60) days following the bid opening date.

2. PRICES AND EXCEPTIONS

The prices shall include all transportation, delivery preparation, and installation charges for the equipment specified. The bid prices shall be F.O.B. Newark Maintenance Garage at the end of Phillips Avenue, Newark, Delaware and shall not include federal or state taxes. If applicable, the successful bidder/vendor must furnish the City with the necessary tax exception forms in triplicate upon submission of his invoice.

3. BID SECURITY

No bid will be considered unless accompanied by a cashier's check, certified check or bid bond in the amount of five percent (5%) of the total proposal, payable to the City of Newark. If a bid bond is submitted, it must be made out on the attached "Bond to Accompany Proposal" form and issued by a surety licensed to conduct business in the State of Delaware. The successful bidder/vendor, upon his failure or refusal to execute and deliver the contract and surety bond within ten days (10) days after he has received notice of the acceptance of his bid, shall forfeit to the City for such failure or refusal the security deposited with his bid.

4. AWARDS

Following a review of all bids by the City Manager and his recommendation to the Mayor and Council, awards, if any, will be made to the best responsible bidder. The Mayor and Council reserve the right to reject any or all bids and to waive minor irregularities and defects in form where the best interests of the City would be served.

5. TRADE-IN

- a. A bidder/vendor bidding on the contract shall submit a quotation on the trade-in vehicle listed in the proposal. The City of Newark reserves the right to trade or not to trade the vehicle for which such quote is submitted. The vehicle that is traded shall be traded in "as is" condition at the time of acceptance of the new vehicle, provided, however, that all equipment which was not original equipment on the vehicle when it was purchased by the City shall be removed by the City prior to trade-in; i.e., radios, etc., unless otherwise noted in the specifications.
- b. Bidders are cautioned not to submit unbalanced proposals by overpricing either the new vehicle or the trade-in allowance. The City may decide to purchase the new vehicle without a trade-in. The successful bidder will be notified whether or not there will be a trade-in at the time of award.
- c. To arrange for an appointment to examine the trade-in vehicle please call Rick Vitelli at 302-366-7000 x 2080.

6. CONTRACT SURETY BOND

Within ten (10) days of the award of the contract, the City shall require a surety bond satisfactory to the City in the full amount of the bid price from the successful bidder/vendor.

7. DAMAGES FOR LATE DELIVERY

Delivery shall be F.O.B. Newark, Delaware. The date of delivery of the equipment is important and may influence the award of the contract. The submitted delivery period shall be calculated from the date of notification of award. Liquidated damages of twenty-five dollars (\$25.00) shall be assessed by the City for every day the contract is extended

beyond the submitted delivery period. Liquidated damages are not to be construed as a penalty in any sense.

8. FINAL INSPECTION

All equipment will be subject to final inspection. If in any way an item fails to meet the terms of the contract, it may be rejected or liquidated damages charges made. The decision of the City will be final and any rejected item or materials will have to be replaced at the expense of the bidder/vendor.

9. INTENT OF SPECIFICATIONS

It shall be the bidder/vendor's responsibility to furnish the equipment specifically indicated in the specifications and such other as may be necessary to provide the operation intended by the City. Whether or not they are specifically enumerated in the specifications, all parts necessary to provide a complete and efficient vehicle shall be included in the bid. The bidder/vendor shall bear the entire responsibility for furnishing all the specified equipment (including that for which he may not be a dealer) in complete accordance with all the terms and conditions, including delivery, listed in this contract.

10. EXCEPTIONS

Any and all exceptions which are taken to the specifications shall be noted in the space provided in each part. All vehicles must meet all applicable federal and state regulations.

11. EQUALS

Where a specific product is specified by catalog or model number, the acceptability of any other "or equal" product shall be subject to the sole judgement of the City of Newark.

12. WARRANTIES AND STANDARDS

The vehicle will be unused in all component parts, including all accessories. The specifications will be construed as the minimum required. When the manufacturer's standard exceeds these, the standard units will be furnished. All materials will be free of defects. All standard manufacturer's warranties and guarantees shall apply. Bidders must enclose a copy of the warranty policy with the bid proposal. All terms of the warranty policy as submitted shall be applicable to any vehicle purchased under this contract.

13. WORKMANSHIP

Workmanship will conform to the best current manufacturing practice followed for vehicles of the type. Component parts and units will be manufactured to definite standard dimensions with proper fits and clearances. The vehicle will be ready for use, including all lubricants, coolants and operating fluids required.

14. ADVERTISEMENTS

It is further agreed that any bidder/vendor submitting a bid will not use the name of the City in any advertisement without first obtaining the written consent of the City Manager.

15. EEO AND DELAWARE BUSINESS LICENSE

The bidder/vendor shall be licensed to do business in the State of Delaware and also be a fair and equal opportunity employer.

16. NON COLLUSION

The bidder/vendor shall not, either directly or indirectly, enter into any agreement, participate in any collusion, or otherwise take any action in restraint of free competitive bidding in connection with the contract.

17. ADDENDA AND QUESTIONS

Any changes to the contract documents shall be made by written addenda issued no later than four (4) days prior to the bid opening date. Bidder/vendors shall bear the entire responsibility for being sure they have received all such addenda.

Any questions regarding the bidding process shall be directed to Cenise Wright, Purchasing Administrator at 302-366-7000.

Any questions regarding the specifications should be directed to Mr. Rick Vitelli, Electrical Director at 302-366-7000 x 2080.

18. MANUALS/CD/DVD/KEYS

The bidder shall supply one (1) complete set of shop repair manuals, maintenance manuals, trouble shooting manuals, emission manuals, engineer diagnostic manuals, and transmission repair and overhaul manuals.

The bidder shall supply one (1) set of parts manuals and electrical schematics with wiring diagrams for both chassis and body assemblies and subassemblies.

The successful bidder will also furnish engineer software which will permit testing and diagnostic as well as adding/deleting and editing various parameters outside of manufacturers specific limits.

The bidder shall supply one (1) set of body builder software.

Five (5) sets of keys shall also be furnished for each vehicle.

19. PAYMENT

No invoices will be processed for payment until the new vehicle is delivered and verification is made that all specifications under this contract have been met.

20. COMPLIANCE WITH SPECIFICATIONS

Any equipment bid must meet or be equal to these specifications. Any deviation from these specifications must be explained in full detail, including drawings, and engineering explanation. Bid must be in strict compliance with the specifications, and offer the same or equal equipment. Exceptions are to be listed separately in a letter which will become a part of your proposal, otherwise, it is fully understood that the equipment offered is exactly as specified.

21. PARTS AND SERVICE

Bidder to indicate nearest service center to the City for parts and service. Bidder should have a parts distributor and repair facility for parts supply and repair work within one hundred (100) miles of the City of Newark. During warranty period of complete unit bidder will provide road service at no cost to the City of Newark or assume transport costs to their repair facility in the event road service is not available.

22. USE OF OTHER NAMES AND REFERENCES

Unless otherwise stated, the use of the manufacturer's name and product are for descriptive purposes, and establishing general quality levels only. They are no intended to be restrictive. Bidders are required to state exactly what they intent to furnish, otherwise, it is fully understood that

they shall furnish all items as stated.

23. BROCHURES AND LITERATURE

Proposal must be accompanied by descriptive literature - marked, and indicating the exact items to be furnished. The terms "as specified" will not be acceptable.

24. FIRST MAINTENANCE REQUIREMENT KIT

A complete set of fuel, oil, hydraulic and air filters with clearly defined manufacturer's part numbers will be furnished for both chassis and body.

25. FACTORY SERVICE TRAINING

The successful bidder will provide two (2) days of Cummins Insite Training at the Bristol, PA. location for two (2) maintenance technicians. Contact information for training is Ashten N. Nastelli 717-307-2334 or ashten.nastelli@cummins.com.

The successful bidder will provide two (2) days of factory training for two (2) maintenance technicians on the repairing and maintenance of the boom, hydraulics, and safety systems for the body. Any travel, room and board costs shall be included with this training for the body.

26. WARRANTIES

WARRANTIES - All units delivered must be guaranteed to be free from defects in materials, design and workmanship for two (2) years with unlimited miles and hours from date of final delivery excluding normal wear items.

ENGINE - Seven (7) years with 150,000 miles and 6,000 hours on engine electronics. Example (injectors, control system, internally lubricated parts, fuel pump, turbo charger, 100% parts and labor.

TRANSMISSION WARRANTY - Five (5) years unlimited mileage and hours. 100% parts and labor.

RUST THROUGH WARRANTY ON CAB STRUCTURE - Five (5) years unlimited miles and hours.

FRAME RAILS - Seven (7) years warranty including cross members, brackets and side members.

27. INDEMNIFICATION

The contractor shall solely be responsible and liable for the accuracy and completeness of all work performed and shall agree to indemnify, defend and hold harmless the City of Newark, its officers, agents and employees, from and against any and all claims, actions, suits and proceedings arising out of, based upon or caused by negligent acts, omissions or errors of or the infringement of any copyright of patent, by the contractor, its officers, agents, employees or subcontractors, in the performance of the contracted agreement.

28. TERMINATION OF AGREEMENT

This agreement may be terminated by the City upon thirty (30) days written notice if the contractor fails to perform satisfactorily in accordance with the terms and conditions of the contract. In the event this agreement is terminated, the contractor shall be paid for services satisfactorily rendered up to the termination date.

CITY OF NEWARK
Delaware

CONTRACT NO. 16-05

PURCHASE OF ONE NEW 43' AERIAL LIFT,

UTILITY BODY AND CHASSIS

TECHNICAL SPECIFICATIONS

It is the intent of the following specifications to set up minimum requirements for a 43 foot, 48 foot working height, articulating, insulated aerial tower, with one-man side hung basket with "Side by Side" upper and lower booms as manufactured by Versalift. These specifications are to be considered minimum. If it is necessary to bid alternate equipment or to take exceptions to the specifications as set forth, this must be so stated in the bid. Any reference to a model or brand name is only to denote quality, and does not mean that equal equipment will not be considered. This unit must be tested to meet OSHA and A92.2-2015 standards and all pertinent FMVSS safety standards.

1. <u>GENERAL SPECIFICATIONS</u>	<u>PLEASE STATE</u>
Side by Side Boom Design Aerial Unit	_____
Height to bottom of basket 43 feet	_____
Working height 48 feet	_____
Rated capacity of bucket 400 lbs.	_____
Horizontal side reach, 33ft. Overcenter upper boom position	_____
Horizontal side reach, 33ft., 1in. lower boom @ 115 degrees, upper boom horizontal	_____
Overall stowed height 11 feet	_____
Stability test, horizontally extended; level ground 600 lbs.	_____
5 degree slope 533 lbs.	_____
Upper boom insulation gap 125 inches	_____

Lower boom insulation gap 18 inches

Maximum level of deflection per
foot of the upper fiberglass
boom at rated platform
capacity

Aerial device metal parts shall be shot blasted, phosphatized, primed and painted.

Completed unit shall be capable of passing OSHA stabilization tests with front and rear axle torsion bar assemblies. Level Ride Brand torsion bars are the preferred type.

Device shall be equipped with a front torsion bar where the torsion bar mounts to the forward position of the front axle to optimize ground clearance. The rear axle shall be an overframe torsion bar or an aft mount torsion bar assembly to optimize ground clearance.

Aerial device shall be manufactured in an ISO9001 certified facility.

2. PLATFORM

Fiberglass platform is a closed **24" x 30" x 42"** with **two exterior** molded exterior steps for ease of access/exit of platform. Steps shall be two to the curbside when booms are stowed. Platform is to be side hung mounted and have a capacity of 400 pounds.

Platform leveling is achieved automatically through a completely enclosed parallelogram system. The major components of this system include several 1" diameter fiberglass leveling rods and ANSI No. 100 roller chain and various idlers. **There are no cables used in this system.** The fiberglass leveling rods maintain the insulation gaps in all boom positions and are 100% tested at twice the rated load. The tension is adjusted by means of a threaded rod at the knuckle and platform leveling is adjusted by another threaded rod at the turret.

Mechanical platform tilt for platform clean out or personnel rescue. This shall be a dual securing type device where a cam type latch is secured with a mechanical detent pin that requires release mechanism to be activated to commence tilting action.

Hard plastic basket cover with elastic binding to secure for all 24'' x 30'' single-man baskets.

Basket liner rated to 50KV for all Versalift 24'' x 30'' one-man solid baskets.

Provide bucket liner scuff pad with molded step in corner.

A hydraulic actuated platform rotator to rotate the platform towards the boom end 90 degrees.

Plastic Techniques HD tool tray for fiberglass platform, shipped loose.

STATE ALL EXCEPTIONS: _____

3. BOOM TRAVEL

The aerial device shall be a "Side - by - Side" boom configuration with the simple elbow type knuckle. The lower boom shall operate from horizontal 25 degree past vertical, providing optimum reach.

The upper boom shall travel 240 degrees relative to the lower boom, -10 degrees to 230 degrees, lower boom travel 115 degrees.

NOTE: Stacked boom units are not acceptable since the platform will be stored over the side compartments and subject to damage as unit drives into areas where objects can come into contact with the platform.

Rotation shall be 360 degree continuous.

Boom action shall be provided by double-acting hydraulic cylinders equipped with double integral holding valves. Upper boom to articulate through use of a hydraulic cylinder. A unique four-bar linkage assures positive boom movement in any position without the need for cable actuation.

Articulation of the upper and lower boom shall be a single hydraulic cylinder for each section. Units with two lift cylinders for either boom section are considered higher maintenance and are unacceptable. **There are no cables used in this system.**

STATE ALL EXCEPTIONS: _____

4. LOWER BOOM

The lower boom is a high strength square steel tube 12" x 12" for maximum strength and rigidity. The lower boom cylinder anchors located on the lower boom are reinforced for extra strength. Boom articulation is from horizontal to 20 degrees past vertical. Articulation is achieved by using one double-acting cylinder and is equipped with two integral holding valves. In the event of a hydraulic failure the integral holding valves prevent the booms from dropping by locking the booms in position. In addition the cylinder rod eyes are both threaded and welded.

STATE ALL EXCEPTIONS: _____

5. LOWER BOOM LIFT EYE

1500 lb. Lift eye on lower boom with capacity and warning decals.

6. CHASSIS INSULATING SYSTEM (LOWER BOOM INSERT)

Each end of a high strength filament-wound oven based epoxy resin fiberglass insert is inserted into a welded box section rectangular shaped steel section until the fiberglass butts up against the mechanical stop welded on each steel section. When the insert is snugged up between both stops it is positioned correctly. The fiberglass insert maintains an 18" insulation gap between the two steel sections. Then the steel and fiberglass sections are bonded with pressure injected adhesive, which fills all the voids. After the adhesive cures, 16 bolts are installed to assure maximum strength. A stainless steel stud is supplied at each end of the insert to shunt the chassis insulating system during electrical testing.

7. LOWER BOOM OVERSTOW PROTECTION

The aerial lift is equipped with electric/hydraulic overstop valve to limit the descending force and impact of the lower boom with the lower boom rest during stowing operations. This prevents damage to the lower boom fiberglass insert, the lower boom rest, and the vehicle chassis from improper stowing.

STATE ALL EXCEPTIONS: _____

8. INSULATED UPPER BOOM

The rectangular upper boom 8" x 10" is constructed of high strength filament wound epoxy resin fiberglass. The fiberglass has a gel coat and a high gloss durable urethane finish for added weather protection and water beading. At each end of the boom a steel weldment is mounted to the fiberglass, then adhesive is pumped in under pressure to fill all voids. After curing, 8 bolts are installed to assure maximum strength. The fiberglass boom is certified for 46kV and below in accordance with Category "C", ANSI A92.2-2015.

Inside of all fiberglass boom sections are to be coated with clear urethane finish to protect inner surface. The upper boom electrical insulation gap to be a minimum of 120 inches.

The upper boom articulates a total of 240 degrees relative to the lower boom, 10 degrees minus to 230 degrees overcenter. A four bar linkage system coupled to a dual action hydraulic cylinder mounted between the upper and lower boom assemblies allow the aerial to travel overcenter. The system does not use any cables and the booms can be stowed in any sequence.

An upper boom storage cradle mounted on the side of the rotating turret to provide a high stow upper boom position with boom tie-down strap is included.

The upper and lower booms shall be parallel when stored.

The upper boom shall provide a ``High Stow`` bucket that allows material storage on the body floor at the rear area.

Lower boom rest to be integral to the rear cross structure of the cab guard with padded saddle for boom placement when stowed.

9. VACUUM PREVENTION SYSTEM

All hydraulic lines to platform will have vacuum prevention check valves or atmospheric vents to protect against vacuum flashback.

10. TURRET

Turret wings are made of high strength steel solid plate with rearward offset type design. The bearing cover is continuous welded to seal out moisture and prevent foreign materials from obstructing the turret's rotation. The turret base plate is machined to provide a flat surface to support the rotation bearing.

11. CONTINUOUS ROTATION

Rotation is continuous and unrestricted in either direction. This is accomplished by a hydraulically driven worm and spur gear acting on a shear ball rotation bearing. The critical bolts holding the lift to the rotation bearing and the rotation bearing to the pedestal are SAE Grade 8.

These critical bolts are marked with a torque seal indicator to provide a quick means of detecting any loosening upon inspection. An eccentric ring gearbox mounting allows for precise adjustments of the gearbox pinion clearance.

STATE ALL EXCEPTIONS: _____

12. LUBRICATION

Non-lube bearings are used at all points of boom motion. Only the rotation bearing and leveling chain require periodic lubrication.

All pivot points to be equipped with Teflon fiberglass type bearings.

All pivot pins shall be hardened steel, chrome-plated and secured with welded pin tabs on one end and a bolted pin cap on the other end.

13. PEDESTAL

The rear mount pedestal is a fabricated steel structure and includes mounting hardware for mounting over the rear axle. The pedestal is welded to the understructure then it is bolted to the chassis frame with shear plates. Unit to include a 12" riser as required for adequate cab clearance when booms are stowed. The hydraulic oil reservoir is built integral to the pedestal. The top plate of the pedestal is 1 1/4" thick and machined flat to support the rotation bearing.

STATE ALL EXCEPTIONS: _____

14. PTO & PUMP

10 bolt hot shift PTO transmission mounted with illuminated rocker switch in the overhead console for activation. A **flashing light** shall be provided in the overhead console to indicate activation.

A flange mounted piston type hydraulic pump shall be provided to provide optimum operating requirements for the aerial tower and related hydraulic system components.

15. TORQUE INDICATOR MARKINGS

ALL critical bolts are marked with a torque seal indicator to provide a quick means of detecting any loosening upon a visual inspection.

16. HYDRAULIC SYSTEM

The CLOSED-center hydraulic system operates at 2500 PSI at 6 GPM. A piston type variable displacement pump mounted to a transmission mounted PTO provides hydraulic system flow. A pressure relief valve is installed to protect hydraulic system from damage. A 10 micron return line filter is mounted above the hydraulic oil level and inside the pedestal. The return line filter can be easily changed without draining the reservoir. The suction screen inside the tank has a 100 mesh rating and can be removed for cleaning. Located below the reservoir is a gate valve to prevent oil loss when the pump is serviced. A magnetic drain plug is used to attract and collect any metallic contamination in the reservoir. Hydraulic oil is Tellus T-22.

STATE SYSTEM OPERATING PRESSURE: _____

17. HYDRAULIC OIL RESERVOIR

Designed as an integral part of the pedestal, the reservoir has anti-splash baffles, a return line filter gauge and easy to read fluid level gauges. The hydraulic oil capacity in the reservoir is 17 gallons.

STATE ALL EXCEPTIONS: _____

18. CYLINDERS

Both the upper and lower boom cylinders are the threaded end cap design. The lower boom cylinder will be equipped with two integral holding valves to prevent down creep of the booms and to lock the booms in position in the event of a hydraulic failure. The upper boom cylinder is equipped with two integral holding valves to prevent down creep of the booms and to lock the booms in position in the event of a hydraulic failure. The upper boom lift cylinder shall mount between the side by side boom configuration. All hydraulic cylinders shall have the rods retracted during stored

position to prevent inadvertent damage.

STATE ALL EXCEPTIONS: _____

19. HYDRAULIC TOOLS

This system is designed to use open center hydraulic tools. The tool circuit provides 5 GPM at 2000 PSI. Two sets of hydraulic tool ports with shut off valves (two pressure ports and two return ports), with a selector to choose tool to be used at the platform.

One set of hydraulic tool outlets with shut off valves to be provided at curbside rear of chassis. Selector valve to be included for tool operation. **Provide three (3) sets of Parker NS-370 or exact equal quick couplers with dust covers, two at basket and one set rear tool outlets.**

STATE ALL EXCEPTIONS: _____

20. CONTROL VALVES

Full pressure control valves at the platform and the turret control the following lift functions: rotation, upper boom and lower boom movements. The single stick with safety trigger is the standard platform control. The lower controls are multi-lever and are equipped with a control selector valve to override the upper controls.

21. HOSES AND FITTINGS

The hoses routed through the booms are high pressure, non-conductive hoses with swaged hose end fittings. Precautions are taken where hoses might chafe or rub. For example, retainers are used to separate the hoses inside the booms to prevent chafing. Nylon sleeves are installed over hoses at points of movement.

Hose bundle feeding the upper controls shall not ``loop'' away from the boom and basket. All hoses at basket shall be a design that hoses are routed inside boom components or protective conduit.

22. PLATFORM CONTROLS

The single stick lever is a full pressure control with a built-in safety trigger, which must be activated before any lift function can be operated. Designed as an extension of the operator's arm and hand, the single stick lever offers finely controlled boom

movements that correspond to the direction the handle is moved. The safety trigger selects lift functions when released to its normal position. An emergency hydraulic stop valve in addition to the safety trigger is to be provided.

NOTE: Pilot operated type controls are unacceptable.

Upper controls shall be part of the platform and are NOT to be mounted to the upper boom.

Upper control isolation system to protect operator from electrical contact of the upper boom end to the control console.

STATE TYPE OF CONTROL SYSTEM PROVIDED: _____

23. ELECTRICAL INSULATION SPECIFICATION

The upper boom is tested and certified for electrical work at 46kV and below in accordance with Category "C", ANSI A92.2-2001 requirements. The chassis insulating system (lower boom insert) is also tested according to ANSI A92.2-2015. Vacuum prevention for all the hydraulic hoses routed through the insulated booms are standard.

24. MANUALS

Two (2) operator's and **two (2)** service manuals are included with unit. (See General Provisions, Item #18 - Manuals CD/DVD/Keys).

Provide **manual holder box in cab** to store aerial tower manuals.

25. FALL PROTECTION

Provide quantity of TWO; **flame retardant** full body harnesses with **flame retardant** shock absorbing lanyards, large size.

26. ELECTRICAL

Wired Rite electrical relay system features a color coded wire harness with double positive, environmentally sealed connectors. Unit to include a centralized console installed overhead in cab. Console features illuminated switches and illuminated legends that provide easy access with clear visibility for operator.

Provide four amber LED safety lights 360 degree illumination, North American Brand Model LED400HD, two at front of cab guard, and the other two at the rear of body on top of the box lids.

Illuminated rocker switch activation to be in overhead console. Tops of strobes are to be blacked out. Lights to have flat bar guards.

Provide two 19" amber arrow stick lights mount one each side of rear panel of utility body with directional control box in cabs. Provide a 1/4" flat bar guard arrow stick unit, complete 360 degree and depth, one per side.

27. EMERGENCY POWER

This system consists of a hydraulic pump driven by a DC motor, which is powered by the truck's engine battery. The system is connected in parallel with the main pump and is designed for non-continuous operation. An air cylinder at the upper controls is used to energize this system. An additional pass in the collector assembly is provided. Also provide separate activation switch (weatherproof) at lower controls to operate emergency power at lower controls.

28. HOUR METER

Install hour meter for PTO operation in side of overhead console.

29. ENGINE START/STOP CONTROL

The start/stop circuit has been designed so that the lift cannot be operated unless the truck ignition is in the "run" position and the master control switch is "on". This feature makes it difficult for unauthorized individuals to operate the lift when the truck is locked. An air cylinder at the upper controls is used to energize this system at the platform. A weatherproof toggle switch at the lower controls shall be provided to activate start/stop system.

30. THROTTLE CONTROLS

A manual throttle raises engine speed to preset RPM for proper aerial tower operation. An air cylinder at the upper controls is used to energize this system at the platform. A weatherproof toggle switch at the lower controls shall be provided to activate the throttle.

STATE ALL EXCEPTIONS:

31. BOOM OUT OF REST INDICATOR

Boom out of rest light for indicating lower boom has been stored into boom rest. Provide a flashing red light in overhead console with label. Label to be illuminated from behind for night work.

32. SAFETY INTERLOCK SYSTEMS

PTO/Park brake interlock system. To disengage PTO when brakes are released for road travel. Also provided that chassis brakes be set prior to aerial operations.

PTO to Allison transmission to be in neutral prior to aerial operations to be programmed into unit.

STATE ALL EXCEPTIONS: _____

33. PAINT

The complete unit is primed and painted prior to assembly. The standard color is chassis OEM color of white polyurethane.

Inside of all fiberglass boom sections to be sealed with clear non conductive urethane to prevent moisture from penetrating into fiberglass layers.

34. WELDING & TEST DOCUMENT REQUIREMENTS

All welding performed on the unit must be done by welders who are certified under the latest revision of ANSI A92.1969.

Operator advisement decals to be provided at each operation controls.

Supplier to furnish certified ratings of boom and test results, including vehicle weights, upon delivery of the unit.

BODY SPECIFICATIONS

Placement of all body items shall be approved by the City of Newark prior to construction by vendor providing a CAD drawing.

1. BASIC BODY

The entire unit shall be constructed of 16 gauge galvanneal steel. Doors shall be double paneled, and constructed of 20 gauge galvanneal steel. Body crossmembers shall be of 5" structural

steel. It is to be welded and riveted throughout so as to constitute a single unit. All welding shall be accomplished in accordance with good commercial practice, and all welds shall be thoroughly sanded to insure a satisfactory appearance to the finished product. Basic body shall be in prime paint.

All sheared edges of the bulkheads and side paneling, including door openings, shall have lapped or rolled edges. The door flanges shall be formed in this way and not welded to the body structure. The forward position of all door openings shall have water guards to keep rain water out while truck is moving forward. The hinge rods shall be stainless steel, and be installed in bronze hinge bosses at the end of the door openings. All horizontal doors shall open 180 degrees with rubber doorstops. All door openings shall be designed with a built in trough to carry water away that may get past front edge molding. All doors shall be provided with flush type door handles, slam action double catches, and cylinder locks. Locks shall be riveted into place for easy installation. All locks shall be keyed alike. Exterior paneling of all doors shall be free of excessive waves of welding marks in the metal. Compartment tops to be covered with galvanneal tread plate the full length of the body. Wheel housings to be equipped with rubber fenderettes.

2. BODY DIMENSION

The dimensions shall be 156" long, 94" wide, 48" high and designed to fit a chassis having a 102" cab to axle dimension. Also to include a 26" platform extension. Side compartment depths to be 20".

3. CURBSIDE COMPARTMENTS

Front vertical compartment shall be approximately 24" wide and compartment interior shall include five "J" hooks in a 1-3-1 pattern.

Second vertical compartment shall be approximately 24" wide and compartment interior shall include three adjustable shelves with adjustable dividers.

Curbside entrance opening between front and third vertical compartment. Opening is approximately 24" wide, and has grip strut steps and grab handles. Grip Strut cable hung stirrup step under side access is to be provided, full width of opening. There will be a location for the inverter batteries with a lift up step assembly. The battery location area shall be coated with spray on bed liner material.

One (1) center horizontal compartment approximately 60" wide and

over wheel well to be ventilated, fixed shelf upper portion with dividers and a full length removable parts tray in bottom. Fixed dividers 50" in length shall be installed to allow storage of bolts over 18" long.

Rear vertical compartment approximately 24" wide. Shelf in upper portion extends from horizontal compartment with rear access drop down door with locking latch. Lower portion having a water cask stand with drain to outside of compartment. Also in lower portion provide hook cluster in 1-3-1 pattern immediately beneath the fixed shelf.

4. STREETSIDE COMPARTMENT

Front vertical compartment shall be approximately 24" wide and compartment interior shall include three adjustable shelves with adjustable dividers.

Second vertical compartment shall be approximately 24" wide and compartment interior shall include three adjustable shelves with adjustable dividers.

Third vertical compartment shall be approximately 24" wide and compartment interior shall include three adjustable shelves with adjustable dividers.

One center horizontal compartment over wheelhousing to be approximately 60" wide. Bottom to have removable parts tray with fixed dividers 50" in length shall be installed to allow storage of bolts over 18" long.

Street side compartments shall have a plywood lined full length long hot stick storage with a door opening 13" x 8" at rear of body. Hot sticks to be separated by triangular wood dividers.

Rear compartment to be approximately 24" wide and to include a hook cluster in a 1-3-1 pattern, bolted as high as possible.

5. BASIC BODY TO INCLUDE

26" platform extension at rear of body built of 1/8" diamond safety treadplate and thru tunnel with door at each end. A single door to access thru tunnel and the storage compartments shall be provided on each side.

Thru tunnel to be 5" high and full width.

Diamond safety tread steel floor, 1/8" thick.

1" pipe grab handle at left corner of tailshelf, inverted "U"

type.

Tailshelf access steps, built into rear of tailshelf at each side, integral to the tailshelf storage compartments.

Grab handles and cable hung stirrup step at side access step to load area of body.

Galvanneal treadplate shall be the top of side compartments.

DOT FMVSS 108 LED lighting package. Rear lights to be grommet mounted in channel of tailshelf. Provide LED type lamps on all red and amber color lights, backup lamps to be LED.

Mud flaps installed at rear of body.

Wheel chock holders built into body wheelwell panels with retainer.

Door hinges to be full length.

Door mullions for replaceable door seals.

All doors shall have paddle type handle latches with weather protected cylinder locks, keyed alike, bolted in place. Not welded.

Automotive door seals (replaceable). Glue-on not acceptable.

All doors shall be double paneled with outer panel constructed of high tensile steel.

Body shall be completely prime painted and installed on chassis.

Both sides of body to have full length locking bar device.

All body lighting electrical system to originate at chassis manufacturer's body builders junction block, located in cab.

6. ACCESSORIES

Model T-100 heavy-duty pintle hook, rear crossmember and bracing.
NOTE: Pintle hook throat height to be 24" to 28" on finished unit.

Safety chain anchors 5/8" "U" bolt style, welded.

Cole-Hearse 6 way trailer socket, round terminals.

Cole-Hearse 7 way trailer socket, round terminals. (want both 6 pin and 7 pin)

EPCO Model 500-PS electronic solid state brake controller.

Two heavy duty dock bumpers mounted at rear of unit.

Unit to have vertical exhaust on drivers side with shield. Alter cab guard and accessories to allow exhaust to extend above cab guard. **Provide 90 degree elbow** on top of stack. Any flex pipe used to be stainless steel.

Shield single truck exhaust against oil spray due to failure of hydraulic components and to protect hoses from exhaust heat.

Rustproofing applied to both cab and body with 5 year limited warranty-certificate furnished.

One pair heavy duty wheel chocks (rubber).

Paint gray ferrox non-skid across full length of body, ALL top boxes, any body top and tailshelf.

Body to have rubber fenderettes over each wheel.

Full width cab protector for tilt hood chassis. Cab guard to be a spring floating mount to allow movement. Cab guard to be made of 2" square tubing frame and uprights with heavy duty expanded metal walking surface. Front bumper is to be spaced away from standard location to allow tilt motion of the tilt front end through the cab guard uprights. A diamond plate panel is to be installed between bumper and fiberglass front end.

Provide a grip strut step at right front of load area with properly spaced ergonomics vertically to access top of body compartment then to top of cab guard. Grip strut top area to be approximately 8" x 14" for adequate step area.

Rear basket access steps made of Grip-strut. Curbside step assembly to have staircase effect type steps a minimum of **twenty-two (22)** inches wide from tailshelf to top rear of rubber goods box. A 1" pipe safety/assist rail inner and outer shall be provided on the basket access steps. The outer assist handle shall be full length from the tail shelf to the **top** of the rubber goods box area to protect the operator during all movements to and from the basket.

Provide front of load access to the top of the body boxes for entering fiberglass platform. Provide as required adequately spaced grip strut steps with minimum 8" x 14" treads. Provide assist handles on side of lower boom as required to provide safe ascent and descent to the platform.

Boom rest at rear cross structure of the cab guard with padded saddle for lower boom placement when stowed. Provide two cut outs in front bumper extension panel for cone holders. To be at each end and be approximately an 11" round cutout. Provide footman loops with bungee cord to secure.

Provide Igloo water cask P.N. 351 with P.N. 9758 bracket, shipped loose.

Install replaceable automotive type door seals on all compartment doors.

Rubber goods storage box curbside box to be 84" long by 20" wide by 18" high on the section aft the side cargo access steps, full length of the compartment top with a two piece lid. All boxes to have punched louvered vents, plywood lined on all sides, lids to have lift assist handles, all lids to have spring hasps to secure. Box openings at tops are to have upright flange to prevent water passage into boxes. Box lids to be diamond plate with **100% stainless steel hinges**, all lids to be supported by gas struts to hold open.

Rubber goods storage box curbside box to be 48" long by 20" wide by 18" high on the section FORWARD the side cargo access steps, full length of the compartment top with a one piece lid. All boxes to have punched louvered vents, plywood lined on all sides, lids to have lift assist handles, all lids to have spring hasps to secure. Box openings at tops are to have upright flange to prevent water passage into boxes. Box lids to be diamond plate with 100% stainless steel hinges, all lids to be supported by gas struts to hold open.

Streetside top storage box curbside box to 156" long by 20" wide by 18" high on the section aft the side cargo access steps, full length of the compartment top with a two piece lid. All boxes to have louvered vents, plywood lined on all sides, lids to have lift assist handles, all lids to have spring hasps to secure. Box openings at tops are to have upright flange to prevent water passage into boxes. Box lids to be diamond plate with **100% stainless steel hinges**, all lids to be supported by gas struts to hold open.

Ladder storage box in left side of body top under rubber goods box, to be 8" high by 20" wide and full length of body top. To have roller at rear and securing device. Front section to have sliding door clean out and large drain holes in the bottom.

Provide tailshelf area material retention barricades. Provide 5" high x ¼" steel vertical plates, one to be on left edge from outer

corner of the utility body to the end of the tailshelf, the second to be from the inner corner of the right side of the rear compartment to the end of the tailshelf. Along the rearward edge of the tailshelf provide a removable drop in tailboard that is retained with detent pins on both ends. Tailboard to be 2" x 6" wood, non-pressure treated type.

50 foot grounding cable assembly with three point contact, aerial tower, body and chassis. To have 50 feet of usable cable with grounding clamp. Storage bracket to be at the left side of the basket access steps on the first step.

Material rails with sliding hooks are to be as follows:

On the streetside of the cargo area at front the rail is to be mounted on two vertical channels and be 6' long and have eight (8) sliding hooks. Height to be the same as the curbside set mounted to the rubber goods box. The second set of material hooks are to be two rails, three (3) feet long mounted at the front and rear top of the rubber goods box with four (4) hooks each.

Rear window guard to be made from punched galvanized steel and mounted to cab guard uprights.

Complete priming and painting of body, aerial device and accessories one standard color. Interior to be gray speckled paint. Body, cab and cab protector color to match. Finish color of entire unit exterior to be cab chassis OEM white in urethane type paint.

Fire extinguisher 10 lb. type B & C with bracket. Shipped loose.

First aid kit with holder. Shipped loose.

D.O.T. triangle road reflector kit. Shipped loose.

Overall height engraved placard on dash with 1/2" letters.

Certified weight slip with fuel tanks full, showing front axle, rear axle and complete unit weights. To be in aerial device manuals.

Shield chassis exhaust due to hydraulic spray and excessive heat exposure to hydraulic lines.

Mechanics type heavy duty swivel vise with minimum 6 1/2" wide jaw with removable holder on tailshelf, Wilton 1765 or equal. Bracket shall slide onto tailshelf lip with wingbolt to secure.

Go-Light Model LED 3067 - remote control motorized light mounted

on right **front** of cab guard. Motion of light to be remote controlled with wireless controller. Light to have up/down and right/left motions that provides operator to control from any location in the proximity of the unit. Provide a removable expanded metal guard to protect the light.

Body compartments are to each have a LED type rope light inside on the entire perimeter to illuminate compartment for night work. Lights on vertical compartments shall mount on body doors to provide optimum illumination. Electrical tie into 12 VDC system shall be through the parking light circuit of the cab chassis feeding a relay that provides power to the compartment lights. The relay shall be part of the centralized electrical system.

Dimensions 2400-watt pure-sine wave power inverter with one 9C12 battery supply and required circuit tie into chassis. Four 110-volt GFI outlets mounted in heavy-duty metal box and weatherproof-hinged cover at each corner of the body. Mount inverter in the right front body compartment at the top and provide a louver in the upper area of the compartment for ventilation. Battery to be mounted in body step area location right side, secure and mounted. Inverter to be activated through the chassis ignition key for operations or shutdown.

Provide Wire Mold 6 outlet power strip in the inverter compartment on the shelf designed for the rechargeable tools, this is to be wired to the inverter for operation.

All hydraulic lines shall be protected as required from heat or sharp edges. Shield exhaust as required to protect against oil spray.

Gas Prop door holders to hold vertical doors at 90-degree angle in open position.

Horizontal doors to have coated cable retainers to hold horizontal.

Rear panels of body and fiberglass basket rear panel to have 3'' wide red reflective #980 striping in an inverted ``V'' pattern.

Provide **ten (10)** keys for body door locks.

All body and tailshelf doors to be keyed alike for ease of use.

CAB AND CHASSIS SPECIFICATIONS

2016 Model Year Chassis which conforms to the following specifications:

- GVWR: 26,000 lbs./GCWR: 48,000 lbs.
- Cab to axle: approximately 108"
- 275 HP minimum Cummins ISB6.7 Series diesel engine, 750/ft. torque electronic engine.
- HPCR fuel management system with remote throttle tie in for installation of aerial tower two speed throttle
- Engine aspiration: VGT Turbocharged
- HEATED Fuel-water separator
- Transmission: Allison New World 3000RDS 5-speed automatic with push button dash mounted shifter, with PTO gear and less retarder, factory filled with Allison Transynd fluid.
- Front axle: 10,000 lbs. (GAWR)
- Rear axle: 19,000 lbs. (GAWR) single-speed
- Front suspension: 11,000 lbs. with shock absorbers and stabilizer bar
- Rear suspension: 23,500 lbs. multi-leaf auxiliary rubber
- Rear axle ratio: 6.17:1
- Tires: 11R22.5G(14PR) front highway tread, rear traction tread
- Wheels: 22.5 x 8.25" 10-hole disc wheels, hub piloted
- Frame: straight channel side rail, 120,000 psi yield strength
- RBM: 2,526,000 minimum, Section modulus of 21.05 minimum
- Air tanks: located to leave outside of frame clean behind cab
- Brakes: ABS dual air brake system with automatic slack adjusters
- Parking brakes: spring-applied with dash mounted control (chamber located forward of rear axle)
- Air compressor: 13.2 CFM gear-driven
- Heated Moisture ejector: automatic on wet tank
- Heated air dryer
- Front bumper: 10.25 x .25" steel channel with swept-back ends and openings for two hooks - powder coated gray finish
- Tow hooks: two (2) front frame mounted
- Cooling: heavy-duty with Borg-Warner viscous fan and coolant recovery (surge) tank
- Engine coolant preheater: 1,000 watt with weatherproof plug located on accessory box under left hand door
- Anti-freeze: all season coolant protection to -20F with Nalcool corrosion inhibitor.
- Magnetic drain plugs: engine, transmission and rear axle
- Lubricants: CD Road Ranger synthetic for front and rear axles
- Steering: Power with gear-driven pump and collapsible energy absorbing
- Tilt steering wheel
- Oil seals: National unitized on front and rear with visible window caps on front axle
- Exhaust: RIGHT side with vertical stack and **90 degree tip** - vertical stack to have **chrome heat shield with vertical grab handle**. Any flex pipe to be stainless steel.
- 50 gallon LH fuel step tank with non skid top tread plate,

- sump and drain plug
- Air cleaner: dry element with filter reminder gauge
- PTO opening: LH 10 bolt
- Fiberglass tilt hood, with butterfly access driver's side.
- Padded dash, dual arm rests, dual padded sun visors, exterior locks on both doors
- Heater/defroster/AC package
- Dome lamp with door switches and dash switch
- Exterior assist handles, both sides
- Driver seat to be air suspension high back vinyl type seat with two man high back HD vinyl bench seat with folding back and under seat storage area.
- Seat belts, three sets, two with retractors, shoulder harnesses and one lapbelt in center
- Gauges: speedometer, tachometer, hourmeter, odometer, coolant temperature, fuel level, oil and air pressures, voltmeter
- Dual electric horns and roof mounted air horns
- 3 batteries, 1850 CCA with jumpstart terminals - Batteries mounted under truck cab.
- Alternator: 200 amp - Leece-Neville 8LHA2054UAH
- 7.44" x 14.84" dual stainless west coast heated mirrors with 7.44" convex, main mirror to be breakaway arm mount type
- 12 volt electrical system, HD flasher, HD hazard flasher switch
- Circuit breakers in fuse panel - (less 5 amp fuses)
- Ashtray with cigarette lighter
- Intermittent wipers with washer
- AM/FM stereo radio with clock
- Paint to be manufacturer's white - base clear type paint
- All season climate control
- Back up alarm
- Provide **five (5)** sets of keys for cab-chassis
- Truck chassis OEM Upfitter switches. Provide Qty. 8 switches for added upfitter features.

CITY OF NEWARK
Delaware

CONTRACT NO. 16-05

PURCHASE OF ONE 43' AERIAL LIFT,

UTILITY BODY AND CHASSIS

BIDDER'S PROPOSED SPECIFICATIONS

One New 43' Aerial Lift, Utility Body and Chassis:

Truck Chassis Make and Model No.

Utility Body Make and Model No.

Aerial Lift Make and Model No.

Aerial Lift Specifications:

Lift height to bottom of basket

Working height

Horizontal reach

Stowed travel height

Rated capacity of bucket
in all positions

Upper boom arc of travel

Lower boom arc of travel

Lower boom metal to
metal separation

Hydraulic system
operating pressure

Aerial Lift Safety Items (Yes or No)

Check and/or atmospheric vent
valves to prevent vacuum buildup

Certified ANSI Category "C"

Upper and lower boom tie downs

18" lower boom insert

Aerial device manufactured in an
ISO9001 certified facility

Nearest service center for parts and service. State distance from
City. Successful bidder to have authorized service center within
sixty (60) miles of the City of Newark

Bidders may be required to furnish a similar truck as a demo
within two weeks of a request by the City before award of
contract.

EXCEPTIONS:

CITY OF NEWARK
Delaware

CONTRACT NO. 16-05

PURCHASE OF ONE NEW 43' AERIAL LIFT,

UTILITY BODY AND CHASSIS

PROPOSAL

TO: The Mayor and City Council
Newark, Delaware

FROM: _____

The undersigned as a lawfully authorized agent for the below named Bidder has carefully examined the General Provision, Specifications, and Proposal to be known as Contract 16-05 and binds himself upon award to him by the Mayor and City Council of Newark, Delaware to execute in accordance with such award, a contract of which contract this Proposal and said General Provisions and any Addenda shall be a part, and to furnish the equipment as specified F.O.B. Newark, Delaware in a manner that is in complete accordance with said General Provisions and Specifications, at the following named prices for the items:

BID PRICE

One new 43' Aerial Lift,
Utility Body and Chassis

Minus Trade-in Allowance

One (1)2004 Chassis International 4300SBA
Aerial Lift Truck with Model V0-43I Boom

New Bid Price

Delivery Date

To arrange an appointment to examine the trade-in vehicle, call
Mr. Rick Vitelli at 302-366-7000 x 2080.

Exceptions: _____

Date _____ Bidder/Contractor _____
BY: _____
Its legally authorized representative
TITLE: _____
STREET ADDRESS: _____
CITY, STATE, ZIP: _____
TELEPHONE: _____

CITY OF NEWARK
Delaware

CONTRACT NO. 16-05

PURCHASE OF ONE NEW 43' AERIAL LIFT,

UTILITY BODY AND CHASSIS

BOND TO ACCOMPANY PROPOSAL

(not necessary if certified or cashier's check is used)

KNOW ALL MEN BY THESE PRESENTS THAT _____ of
_____ of the County of _____ and
State of _____, principal, and
_____ of _____ as
surety, legally authorized to do business in the State of
Delaware, are held and firmly bound unto the City of Newark in the
sum of _____ Dollars, to be paid to
said City of Newark for use and benefit of the Mayor and Council
of Newark, for which payment well and truly to be made, we do bind
ourselves, our and each of our heirs, executors, administrators
and successors, jointly and severally, for and in the whole,
firmly by these presents. Sealed with our seal dated the
_____ day of _____ in the year of our Lord, two
thousand sixteen (2016).

NOW THE CONDITIONS OF THIS OBLIGATIONS IS SUCH, that if the
above bounded principal who has submitted to said City of Newark,
a certain proposal to enter into a certain Contract No. 16-05,
Purchase Of One New 43' Aerial Lift, Utility Body and Chassis, and
if said _____ shall well and truly enter into

and executes said contract and furnish therewith such Surety Bond or Bonds as may be required by the terms of said contract and approved by said City of Newark, said Contract, and said Bond to be entered into within ten (10) days after the date of official notice of award thereof in accordance with the terms of said proposal, then this obligation to be void, otherwise shall remain in full force and virtue.

SIGNED AND SEALED IN THE PRESENCE OF WITNESS:

SIGNED _____ (SEAL)

BY _____ (SEAL)

SIGNED _____ (SEAL)

BY _____ (SEAL)